

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

51. (cancelled)

52. (cancelled)

176. (currently amended) A method for producing a flexible laminated membrane, comprising the steps of:

(a) extruding a first layer comprising polyurethane including a polyester polyol; and

(b) extruding a second layer of material together with said first layer, said second layer including functional groups with hydrogen atoms which are capable of participating in hydrogen bonding with said first layer of polyurethane;

said ~~membrane~~ polyurethane having a gas transmission rate of 15.0 or less for nitrogen gas for an average thickness of approximately 20.0 mils.

177. (original) The method according to Claim 176, wherein said membrane has a tensile strength of at least about 2,500 psi.

178. (original) The method according to Claim 176, wherein said membrane has an 100% tensile modulus of between 350 to about 3,000 psi.

179. (original) The method according to Claim 176, wherein said membrane has a durometer hardness ranging from about 60 Shore A to about 65 Shore D.

180. (original) The method according to Claim 176, wherein said first and second layers are laminated together at a pressure of at least 200 psi.

181. (original) The method according to Claim 176, wherein said first and second layers are extruded simultaneously.

182. (previously presented) The method according to claim 176, wherein the average thickness of said first and second layers are varied over the length of the membrane.

183. (original) The method according to Claim 176, wherein said membrane has a durability of at least 200,000 cycles under a KIM test analysis wherein said membrane is in the form of a closed container having an average wall thickness of 18 mils and is inflated with nitrogen gas to 20.0 psig.

184-187. (cancelled)

188. (currently amended) ~~The membrane according to claim 51~~ A flexible membrane, comprising:

a first layer comprising a polyurethane including a polyester polyol and
a second layer formed from a material selected from the group consisting of co-
polymers of ethylene and vinyl alcohol, polyvinylidene chloride, co-polymers of
acrylonitrile and methyl acrylate, polyethylene terephthalate, aliphatic and aromatic
polyamides, crystalline polymers, polyurethane engineering thermoplastics, and
mixtures thereof, wherein said second layer is bonded to said first layer;
said membrane having a gas transmission rate of 15.0 or less for nitrogen gas, wherein
the first layer includes up to about 30 percent by weight of the polyurethane.

189. (cancelled)

190. (previously presented) The method according to claim 176, wherein the polyester polyol is selected from the group consisting of the reaction products of dicarboxylic acids having up to about six carbon atoms and diols having up to about six carbon atoms.

191. (previously presented) The method according to claim 176, wherein the polyester polyol is selected from the group consisting of the reaction products of dicarboxylic acids selected from the group consisting of adipic acid, glutaric acid, succinic acid, malonic acid, oxalic acid, and combinations thereof and diols selected from the group consisting of ethylene glycol, propanediols, butanediols, neopentyl glycol, pentanediols, hexanediols, and combinations thereof.

192. (previously presented) The method according to claim 176, wherein the polyurethane further comprises at least one extender.

193. (previously presented) The method according to claim 176, wherein the first layer includes up to about 70% by weight of the polyurethane.

194. (previously presented) The method according to claim 176, wherein the first layer includes up to about 30 percent by weight of the polyurethane.

195. (currently amended) The method according to claim 176, wherein the membrane polyurethane has a gas transmission rate of 7.5 or less for nitrogen gas for an average thickness of approximately 20.0 mils.

197. (new) A method for producing a flexible laminated membrane, comprising the steps of:

(a) extruding a first layer comprising polyurethane including a polyester polyol; and

(b) extruding a second layer of material together with said first layer, said second layer including functional groups with hydrogen atoms which are capable of participating in hydrogen bonding with said first layer of polyurethane;

said polyurethane having a gas transmission rate of 10.0 or less for nitrogen gas for an average thickness of approximately 20.0 mils.